PolyOne Dynalloy™ 8900-60 Thermoplastic Elastomer (TPE)

Category : Polymer , Thermoplastic , Elastomer, TPE

Material Notes:

Dynalloy™ 8900-series is an innovative thermoplastic elastomer selection formulated to provide the injection molder with a product capable of overmolding and bonding to both low-density polyethylene (LDPE) and polypropylene (PP) with efficient cycle times. - Adhesion to Low-Density Polyethylene and Polypropylene - Flexible - ColorableColor concentrates with polypropylene (PP), ethylene vinyl acetate (EVA), or low density polyethylene (PE) carriers are most suitable for coloring Dynalloy™ 8900-series. Improved color dispersion can be achieved by using higher melt flow concentrates (with a melt flow from 25 - 40 g/10 min). Typical loadings for color concentrates are 1% to 5% by weight. Concentrates based on PVC should not be used. The final determination of color concentrate suitability should be determined by customer trials. Purge thoroughly before and after use of this product with a low flow (0.5 - 2.5 MFR) polyethylene (PE) or polypropylene (PP). The Dynalloy™ 8900-series has excellent melt stability. Maximum residence times may vary, depending on the size of the barrel. Generally, the barrel should be emptied if it is idle for periods of 8 - 10 minutes or longer. Drying is not Required Injection Speed: 1 to 3 in/sec 1st Stage - Boost Pressure: 175 to 800 psi 2nd Stage - Hold Pressure: 30% of Boost Hold Time (Thick Part): 3 to 10 sec Hold Time (Thin Part): 1 to 3 secInformation provided by PolyOne

Order this product through the following link:
http://www.lookpolymers.com/polymer_PolyOne-Dynalloy-8900-60-Thermoplastic-Elastomer-TPE.php

Physical Properties	Metric	English	Comments
Specific Gravity	0.878 g/cc	0.878 g/cc	ASTM D792
Viscosity	11000 cP @Shear Rate 11200 1/s, Temperature 200 °C	11000 cP @Shear Rate 11200 1/s, Temperature 392 °F	ASTM D3835
	44000 cP @Shear Rate 1340 1/s, Temperature 200 °C	44000 cP @Shear Rate 1340 1/s, Temperature 392 °F	ASTM D3835
Linear Mold Shrinkage, Flow	0.0070 - 0.012 cm/cm	0.0070 - 0.012 in/in	ASTM D955

Mechanical Properties	Metric	English	Comments
Hardness, Shore A	60	60	10 sec; ASTM D2240
Tensile Strength at Break	3.72 MPa @Temperature 23.0 °C	540 psi @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tensile Stress	2.34 MPa @Strain 100 %, Temperature 23.0 °C	339 psi @Strain 100 %, Temperature 73.4 °F	Die C2 hr; ASTM D412
	3.03 MPa @Strain 300 %,	439 psi @Strain 300 %,	Die C2 hr; ASTM D412

Mechanical Properties	Metric Temperature 23.0 °C	English Temperature 73.4 °F	Comments
Elongation at Break	680 % @Temperature 23.0 °C	680 % @Temperature 73.4 °F	Die C2 hr; ASTM D412
Tear Strength	28.9 kN/m	165 pli	ASTM D624
Compression Set	19 % @Temperature 23.0 °C, Time 79200 sec	19 % @Temperature 73.4 °F, Time 22.0 hour	25% deflection; ASTM D395B
	39 % @Temperature 70.0 °C, Time 79200 sec	39 % @Temperature 158 °F, Time 22.0 hour	25% deflection; ASTM D395B

Processing Properties	Metric	English	Comments
Rear Barrel Temperature	160 - 182 °C	320 - 360 °F	
Middle Barrel Temperature	171 - 193 °C	340 - 379 °F	
Front Barrel Temperature	182 - 204 °C	360 - 399 °F	
Nozzle Temperature	182 - 204 °C	360 - 399 °F	
Mold Temperature	15.6 - 26.7 °C	60.1 - 80.1 °F	
Back Pressure	0.000 - 0.689 MPa	0.000 - 99.9 psi	
Screw Speed	25 - 100 rpm	25 - 100 rpm	

Descriptive Properties	Value	Comments
Agency Ratings	BfR XXI, section 2.1.3.1.1	Please contact manufacturer for compliance letters.
	FDA 21 CFR 177.1210	Please contact manufacturer for compliance letters.
Appearance	Natural Color	
Features	Good Colorability	
	Good Processability	
	Good Processing Stability	
	High Flow	
Forms	Pellets	
Generic Material	TPE	
Generic Name	Thermoplastic Elastomer (TPE)	

Descriptive Properties	Value	Comments
Processing Method	Injection Molding	
Regional Availability	Africa & Middle East	
	Asia Pacific	
	Europe	
	North America	
	South America	
RoHS Compliance	RoHS Compliant	
Uses	Consumer Applications	
	Flexible Grips	
	General Purpose	
	Household Goods	
	Non-specific Food Applications	
	Overmolding	
	Soft Touch Applications	
	Sporting Goods	
	Thin-walled Parts	

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